REMARKS

For the Examiner's convenience and reference, Applicant's remarks are presented in substantially the same order in which the corresponding issues were raised in the Office Action. Please note that the following remarks are not intended to be an exhaustive enumeration of the distinctions between any cited references and the claimed invention. Rather, the distinctions identified and discussed below are presented solely by way of example to illustrate some of the differences between the claimed invention and the cited references. In addition, Applicant requests that the Examiner carefully review any references discussed below to ensure that Applicant's understanding and discussion of the references, if any, are consistent with the Examiner's understanding.

STATUS OF THE CLAIMS

Claims 1-20 were examined and remain pending. Claims 1-20 stand rejected. There are no amended claims. No claims are canceled. No new claims have been added. No new matter has been added.

RESPONSE TO CLAIM REJECTIONS UNDER 35 U.S.C. § 102(e)

Claims 1-4 and 11-14 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 2004/0059956 to Chakravarthy et. al (hereinafter "Chakravarthy"). Applicant respectfully submits that these claims are patentable over the cited reference because the cited reference does not teach or suggest each and every element of these claims. Accordingly, Applicant traverses these rejections as outlined below.

CLAIM 1 and 11

"Anticipation under 35 U.S.C. §102 requires the disclosure in a single piece of prior art of each and every limitation of a claimed invention." *Apple Computer, Inc. v. Articulate Systems, Inc.*, 234 F.3d 14, 20, 57 USPQ2d 1057, 1061 (Fed. Cir. 2000). An anticipation under section 102 is proper only if the reference shows exactly what is claimed. *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985).

With regard to the rejection of independent claims 1 and 11, Applicant respectfully submits that these claims are patentable over the cited reference, because Chakravarthy fails to teach each and every element set forth in claims 1 and 11. Specifically Chakravarthy fails to teach the recited element wherein "the CPU is adapted to provide a RESET signal to the counter for each CLK pulse when a software task is not running."

To support the rejection of claims 1 and 11, the Office Action states that the signal (PMCPUCLKUNHALTED# 222) disclosed in Chakravathy is the equivalent of the RESET signal in claims 1 and 11 of the present invention. See Office Action, September 6, 2006, p. 2. The Office Action further states that Chakravarthy anticipates the element of claims 1 and 11 wherein "the CPU is adapted to provide a RESET signal to the counter for each CLK pulse when a software task is not running" by disclosing that a "counter within the performance monitor 204 does not count the number of clock pulses (or ticks) when said PMCPUCLKUNHALTED# is de-asserted." See Office Action, September 6, 2006, pp. 2-3 (citing Chakravarthy paragraph 28). Applicant respectfully disagrees with the Office Action's characterization of the cited reference.

The *Response to Arguments* section of the office action states that "The Applicant further argued, in re claims 1 and 11, that the PMCPUCLKUNHALTED# signal does not reset the counter to zero. First, the Examiner would like to point out that nowhere in the claims (1 or 11) does it recite ***the counter being reset*** or that ***the counter is being reset to zero***." Office Action, September 6, 2006, p. 9. Applicants merely cited these examples and embodiments of the RESET signal to illustrate the differences between the RESET of the present invention and the PMCPUCLKUNHALTED# signal disclosed by Chakravarthy.

The signal (PMCPUCLKUNHALTED# 222) is not the equivalent of the RESET signal claimed in the present invention. The signal (PMCPUCLKUNHALTED# 222) acts as an enabling signal in Chakravarthy such that a counter continues to increment only when that signal is asserted, but the signal (PMCPUCLKUNHALTED# 222) does not cause the counter to reset regardless of whether or not it is asserted. Paragraph 28. Conversely, the RESET signal in the present invention may "reset[] the counter, 15, to zero, and set[] the monitor, 17 to the level of the counter, 15, immediately prior to the RESET signal." See Application p. 4, lines 9-12 and lines 25-30. A signal that enables a counter to count and a signal that resets a counter to zero are patentably distinguishable. Disregarding these patentable differences also disregards any

benefits, advances, or improvements made possible by the claimed invention. Such benefits may include "avoid[ing] an additional set or layer of software tasks to monitor CPU utilization," by employing a hardware solution to reduce heat dissipation and battery drain. See Specification, p. 3, lines 16-29. Therefore, Applicants respectfully assert that Claims 1 and 11 are patentable over Chakravarthy because Chakravarthy fails to show exactly what is claimed in each and every limitation of the claims.

A close reading of Chakravarthy further demonstrates the importance of this distinction. Chakravarthy requires an additional system timer to properly function. See Figures 5 and 6 and paragraphs 36-39. That invention initializes a timer and begins counting the number of clock cycles used by the microprocessor. Then, after a preset sampling time period ends, the timer is stopped and calculations are made to determine how many clock cycles were used by the microprocessor during the sampling period. See Figures 5 and 6 and paragraphs 36-39. The present invention on the other hand, directly utilizes a count value to continuously enhance the efficiency of the system by adjusting control signals based on the count value. See Application Figure 2 and the text generally. The novel use of the RESET signal, as recited in claims 1 and 11, facilitates this operation and is not taught by Chakravarthy.

Specifically, Claims 1 and 11 include "[a] counter adapted to count the number of clock pulses since a RESET; the CPU adapted to provide a RESET signal to the counter for each CLK pulse when a software task is not running on the CPU; and the monitor is adapted to store the value in the counter immediately prior to the last RESET." See Claims 1 and 11. By contrast, Chakravarthy requires a separate clock control unit 200.1 which is part of a BUS INTERFACE 200 to monitor a HLT signal 216 and a BREAK signal 218. See Chakravarthy, Figure 2. The clock control unit 200.1 must generate the PMCPUCLKUNHALTED# signal 222 and transmit it to a BUS UNIT PMON 200.2. *Id.* The BUS UNIT PMON 200.2 then pushes the PMCPUCLKUNHALTED# signal 222 out onto a PMON BUS 206 which communicates it to the performance monitor 204. *Id.* Thus, an implementation as in claims 1 and 11, where "the CPU is adapted to provide a RESET signal to the counter for each CLK pulse when a software task is not running on the CPU" may eliminate the need for the HLT signal 216, the BREAK signal 218, BUS INTERFACE 200, clock control unit 200.1, bus unit PMON 200.2, and PMON bus 206 required to generate and communicate the PMCPUCLKUNHALTED# described in

Chakravarthy. Therefore, Claims 1 and 11 are patentable over Chakravarthy, because Chakravarty fails to show exactly what is claimed in each and every limitation of the claims.

Because Chakravarthy fails to teach each and every element recited in claims 1 and 11, the Office Action fails to establish a *prima facie* case of anticipation. Thus, Applicant respectfully submits that independent claims 1 and 11 are patentable over the cited reference. Consequently, Applicant requests that the rejection of claim 1 under 35 U.S.C. § 102(e) be withdrawn.

CLAIMS 2-4 and 12-14

Given that dependent claims 2-4 depend from claim 1 and claims 12-14 depend from claim 11, Applicant respectfully submits that those claims are also patentable over the cited reference. Accordingly, Applicant requests that the rejection of dependent claims 2-4 and 12-14 under 35 U.S.C. § 102(e) be withdrawn.

RESPONSE TO CLAIM REJECTIONS UNDER 35 U.S.C. § 103(a)

Claims 5-10 and 15-20 stand rejected under 35 U.S.C. § 103(a). In particular, claims 5-10 and 15-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Chakravarthy in view of U.S. Patent No. 2004/0098631 to Terrell, II (hereinafter "Terrell"). Applicant respectfully submits that these claims are patentable over the cited references, because claims 5-10 and 15-20 depend from allowable claims 1 and 11 respectively. Accordingly, Applicant traverses these rejections as outlined below.

CLAIMS 5 -10 and 15-20

With regard to the rejection dependent claims 5-10 and 15-20, Applicant respectfully submits that independent claims 1and 11 are patentable over the cited references as described above. Specifically, Chakravarthy fails to teach the recited element wherein "the CPU is adapted to provide a RESET signal to the counter for each CLK pulse when a software task is not running." Accordingly, Applicant submits that claims 5-10 and 15-20 are patentable in their current form as depending from independent claims 1 and 11 respectively. Consequently,

Applicant requests that the rejection of claims 5-10 and 15-20 under 35 U.S.C § 103(a) be withdrawn.

Futhermore, Terrell, like Chakravarthy, fails to teach wherein a "CPU is adapted to provide a RESET signal to [a] counter for each CLK pulse when a software task is not running." Thus, a rejection of claims 1 and 11 under 35 U.S.C. § 103(a) based on Chakravarthy in view of Terrell would also be improper. (A prima facie case of obviousness requires the combination of references to teach or suggest all of the claim limitations. MPEP 2142.)

CONCLUSION

As a result of the presented amendments and remarks, Applicant asserts that claims 1-20 are patentable and in condition for prompt allowance. Should additional information be required regarding the amendment or traversal of the rejections of the independent and dependent claims enumerated above, the Examiner is respectfully asked to notify Applicant of such need. If any impediments to the prompt allowance of the claims can be resolved by a telephone conversation, the Examiner is respectfully requested to contact the undersigned.

Respectfully submitted,

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